

United States Department of Agriculture

Marketing and Regulatory Programs

Agricultural Marketing Service

Specialty Crops Program

Specialty Crops Inspection Division

United States Standards for Grades of Frozen Corn on the Cob

April 8, 2021

This issue of the United States Standards for Grades of Frozen Corn on the Cob (86 FR 13519) supersedes the previous issue which has been in effect since July 27, 1970.

Voluntary U.S. grade standards are issued under the authority of the Agricultural Marketing Act of 1946, which provides for the development of official U.S. grades to designate different levels of quality. These grade standards are available for use by producers, suppliers, buyers, and consumers. As in the case of other standards for grades of fresh and processed fruits, vegetables, and specialty crops these standards are designed to facilitate orderly marketing by providing a convenient basis for buying and selling, for establishing quality control programs, and for determining loan values.

The U.S. grade standards and inspection instructions for all fresh and processed fruits, vegetables, and specialty crops are available on the internet and upon request at the address below. These documents provide detailed interpretations of the grade standards and provide step-by-step procedures for grading the product.

Grade standards are issued by the U.S. Department of Agriculture (USDA) after careful consideration of all data and views submitted during rulemaking. The Department welcomes suggestions for improving the standards in future revisions. Comments may be submitted to, and copies of standards and inspection instructions obtained from:

Director, Specialty Crops Inspection Division Specialty Crops Program, USDA, Agricultural Marketing Service 1400 Independence Avenue, SW, STOP 0240 Washington, D.C. 20250

Authority: 7 U.S.C. 1621-1627.

Note: Compliance with the provisions of these standards shall not excuse failure to

comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or

with applicable State laws and regulations.

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United States Standards for Grades of Frozen Corn on the Cob

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Product Description, Styles, Color, Grades §52.931 Product description.

Frozen corn on the cob is the product which is prepared from sound, properly matured, fresh, sweet corn ears by removing husk and silk; by sorting, trimming, and washing to assure a clean and wholesome product. The ears are blanched, then frozen and stored at temperatures necessary for the preservation of the product.

Types of frozen corn on the cob include conventional sweet corn, which means kernels of sweet corn that convert sugars to starch by going through distinct stages of maturity—milk, cream, then dough stages, and supersweet corn, which means kernels of corn that provide higher naturally occurring sugar, and/or crisper texture (maybe yellow, white or combination of each) typical for the type. These types may be slightly darker in color, and some varieties have slightly tougher pericarp (kernel skin) than conventional sweet corn.

§52.932 Styles.

- (a) Trimmed. Ears trimmed at both ends to remove tip and stalk ends and/or cut to specific lengths.
- **(b) Natural.** Ears trimmed at the stalk end only to remove all or most of the stalk.

§52.933 Lengths.

- (a) Regular. Ears which are predominantly over 3-1/2 inches in length.
- **(b) Short.** Ears which are predominantly 3-1/2 inches or less in length.

§52.934 Colors of frozen corn on the cob.

- (a) Golden (or yellow) means the kernels of corn are predominantly golden (or yellow) and typical for the variety;
- (b) White means the kernels of corn are predominantly light cream in color and typical for the variety;
- **(c)** Mixed means any combination of the color types white and golden (or yellow).
 - (1) Mixed color must be of a single type, either conventional sweet or supersweet corn and not a combination of the two types;
 - (2) Mixed color will be designated as a mixed or specialty pack.

§52.935 Grades.

(a) U.S. Grade A frozen corn on the cob is composed of ears with similar characteristics of type (conventional sweet or supersweet) and that have a good

flavor and odor. The ears have a good color; are at least reasonably uniform in size; are at least reasonably well developed; are practically free from defects; and are tender. The product scores not less than 90 points when rated in accordance with the scoring system outlined in this subpart.

- (b) U.S. Grade B frozen corn on the cob is composed of ears with similar characteristics of type (conventional sweet or supersweet) and that have at least a reasonably good flavor and odor. The ears have at least a reasonably good color; may lack uniformity of size and development; are at least reasonably free from defects, and are at least reasonably tender. The product scores not less than 80 points when rated in accordance with the scoring system outlined in this subpart.
- **(c) Substandard (Sstd)** is the quality of frozen corn on the cob that fails to meet the requirements of U.S. Grade B.

Factors of Quality §52.936 Ascertaining the grade of a sample unit.

- **General.** The grade of a sample unit of frozen corn on the cob is ascertained by considering: The flavor and odor which are not scored; the ratings for the factors of color, uniformity of size, development, defects, and tenderness and maturity which are scored; the total score; and the limiting rules which may be applicable.
- (b) Sample unit size. For purposes of rating the quality of factors, a sample unit shall consist of four (4) ears; or, if the ears are short ears (trimmed to predominantly 3-1/2 inches or less in length) the sample unit shall be eight (8) such short ears.
- (c) Definitions of flavor and odor.
 - (1) Good flavor and odor means that the product has a good characteristic, normal flavor and odor and is free from objectionable flavors and objectionable odors of any kind.
 - (2) Reasonably good flavor and odor means that the product may be lacking in good flavor and odor but is free from objectionable flavors and objectionable odors of any kind.

(d) Factors rated by score points. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given such factors are:

Factors:	Points
Color	20
Uniformity of Size	10
Development	10
Defects	30
Tenderness and maturity	30
Total Score	100

§52.937 Ascertaining the rating for the factors which are scored.

The essential variations within each factor which is scored are so described that the value may be ascertained for each factor and expressed numerically. The numerical range within each factor which is scored is inclusive. (For example, 27 to 30 points means 27, 28, 29, or 30 points.)

§52.938 Color.

- (a) General. The factor of color is evaluated immediately after the product has been water-thawed to the extent that the outer surfaces are substantially free from ice crystals.
- **(b) Off-variety kernels** means kernels which are not blemished but which vary markedly from the predominant color/colors (for mixed color varieties) and are not characteristic of the variety.
- (c) "A" classification. Frozen corn on the cob that has a good color may be given a score of 18 to 20 points.

Good color means that the corn has a typical, bright color and complies with the requirements for U.S. Grade A in Table I.

(d) "B" classification. Frozen corn on the cob that has a reasonably good color may be given a score of 16 or 17 points. Frozen corn on the cob that falls into this classification shall not be graded above U.S. Grade B, regardless of the total score (limiting rule).

Reasonably good color means a color that may be slightly dull but is not of abnormal color. Such color also complies with the requirements for U.S. Grade B in Table I.

(e) "Sstd" classification. Frozen corn on the cob that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 15 points and shall not be graded above Substandard, regardless of the total score for the product (limiting rule).

Table I - Requirements for Uniformity of Color and Off-Variety Kernels

	Uniformity of color		Off-varie	ty kernels	
	Each ear in the sample unit		Each ear in the sample unit	All ears in the sample unit	
			Maximum number		
U.S. Grade A	Practically Uniform	Reasonably Uniform	3 kernels	6 kernels	
U.S. Grade B	Reasonably Uniform	Fairly Uniform	15 kernels	30 kernels	

§52.939 Uniformity of size.

- (a) General. The rating for uniformity of size is based on the variations in length and diameter of the ears. The diameter is the largest diameter measured at right angles to the longitudinal axis.
- **(b) "A" classification.** Frozen corn on the cob that is practically uniform in size may be given a score of 9 or 10 points.

Practically uniform in size means that the variations in the diameter and/or length of the ears do not exceed the variations allowed for U.S. Grade A, for the applicable style, in Table II.

(c) "B" classification. Frozen corn on the cob that is only reasonably uniform in size may be given a score of 8 points.

Reasonably uniform in size means that the variations in the diameter and/or length of the ears do not exceed the variations allowed for U.S. Grade B, for the applicable style, in Table II.

(d) "Sstd" classification. Frozen corn on the cob that exceeds the variations allowed for U.S. Grade B, for the applicable style, in Table II may be given a score of 0 to 7 points and shall not be graded above U.S. Grade B, regardless of the total score (partial limiting rule).

Table II - Variation Limits for Diameter and Length

Maximum	Trimmed style Natural sty					al style
variation in the sample	Regular length ears		Short ler	gth ears	(untr	immed)
unit	Diameter	Length	Diameter	Length	Diameter	Length
U.S. Grade A	1/2 inch	3/4 inch	1/2 inch	1/2 inch	1/2 inch	1-1/2 inches
U.S. Grade B	3/4 inch	1 inch	3/4 inch	1/2 inch	3/4 inch	2 inches

§52.940 Development.

(a) General.

- (1) Development refers to the extent that the ears are filled with corn kernels and the pattern arrangement, as applicable, of such kernels on the cob.
- (2) Classification of development defects, if applicable, are made on each ear regardless of length.
- (3) Evaluation of this factor as to grade is made on the basis of a sample unit.

(b) Conditions of evaluation.

- (1) The classification of development defects is done after the product has been thawed to the extent that the outer surfaces are substantially free from ice crystals.
- (2) For natural style, development defects over the outermost one (1) inch of the tip end of the ear are not scored.
- (c) "A" classification. Frozen corn on the cob that is well developed may be given a score of 9 or 10 points.

Well developed means that the ears in the sample unit are well filled with kernels and the appearance of none of the ears in the sample unit is materially affected by missing, or underdeveloped kernels. In addition, any development defects present (as defined and classified in this section) do not exceed the allowances in Table III.

(d) "B" classification. Frozen corn on the cob that is reasonably well developed may be given a score of 8 points.

Reasonably well developed means that the ears in the sample unit are reasonably well filled with kernels and the appearance of none of the ears in the sample unit is seriously affected by missing, or underdeveloped kernels. In addition, any development defects present (as defined and classified in this section) do not exceed the allowances in Table III.

- (e) "Sstd" classification. Frozen corn on the cob that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 7 points and shall not be graded above U.S. Grade B, regardless of the total score for the product (partial limiting rule).
- (f) Definitions and classification of development defects.

Type of development defect	Classif	ication
(applicable to each ear, regardless of length)	Minor	Major
Twisted ear: An ear twisted—more that the width of 4 rows of kernels or more than 1/4 of the circumference—from one end to the other	Х	
Nonparallel kernels: (Not applicable to varieties which characteristically have staggered rows.) An ear having an area comprised of three (3) or more adjacent nonparallel rows extending more than two (2) inches, lengthwise, of the ear	Х	
Separation of rows exceeding 1/2 the length of the ear: One space showing cob more than 1/4, but not more than 1/2, the width of an average size kernel	х	
Two or more such spaces showing cob more than 1/4, but no more than 1/2, the width of an average size kernel		Х
A space or spaces showing cob more than 1/2 the width of an average size kernel		Х

Table III - Development Defects for Each Grade

Grade Classification	Total of Minor only (applicable only when there are no major)	Total of Minor and Major	Limit for Major	
	Maximum in the sample unit			
U.S. Grade A	3	2	1	
U.S. Grade B	6	4	2	

§52.941 Defects.

(a) General.

(1) This factor refers to the degree of freedom from such defects as crushed and broken kernels, blemished kernels, poorly trimmed ears, attached stalk, husk, and dark or readily noticeable silk.

- (2) Crushed and broken kernels, blemished kernels, poorly trimmed ears, and attached stalk are scored on the basis of individual ears, regardless of length.
- (3) Husk and silk are aggregated and are scored on the basis of a sample unit.

(b) Conditions of evaluation.

- (1) The classification of defects is done after the product has been water-thawed.
- (2) For natural style, defects over the outermost one (1) inch of the tip end of the ear are not scored except for those kernels which are classed as blemished.
- (c) "A" classification. Frozen corn on the cob that is practically free from defects may be given a score of 27 to 30 points.

Practically free from defects means that:

- (1) Any combination of defects present (whether or not specifically defined) may slightly, but not materially, detract from the appearance or edibility of the product; and
- (2) The defects present (as defined and classified in this section) do not exceed the allowances in Table IV.
- (d) "B" classification. Frozen corn on the cob that is reasonably free from defects may be given a score of 24 to 26 points. Frozen corn on the cob that falls into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (limiting rule).

Reasonably free from defects means that:

- (1) Any combination of defects present (whether or not specifically defined) does not seriously detract from the appearance or edibility of the product; and
- (2) The defects present (as defined and classified in this section) do not exceed the allowances in Table IV.
- (e) "Sstd" classification. Frozen corn on the cob that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 23 points and shall not be graded above Substandard, regardless of the total score for the product (limiting rule).

(f) Definitions and classifications of defects.

Applicable to an individual ear, regardless of length Crushed or broken kernels (other than those at end of ears caused by trimming or cutting): Short length ears: 7 to 15 kernels 16 to 30 kernels More than 30 kernels or 16 or more kernels in one area materially affecting the appearance of the ear Regular length ears: 10 to 25 kernels 26 to 50 kernels More than 50 kernels or 26 or more kernels in one area materially affecting the appearance of the ear Blemished kernels (includes, but is not limited to, kernels affected by discoloration, blemishes, pathological injury, or other damage): Short length ears: 1 or 2 kernels 3 or 4 kernels A X Regular length ears: 2 or 3 kernels 4, 5, or 6 kernels More than 45° from a right-angle cut X	Turner of defeate and definitions	Classification				
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More than 45° from a right-angle cut Stalks: More than 1/4 inch, but not more than 1/2 inch, of attached stalk X	Poorly trimmed ears:					
Stalks: More than 1/4 inch, but not more than 1/2 inch, of attached stalk X	More than 30°, but not more than 45°, from a right-angle cut	Х				
More than 1/4 inch, but not more than 1/2 inch, of attached stalk X	More than 45° from a right-angle cut		X			
	Stalks:					
More than 1/2 inch of attached stalk X	More than 1/4 inch, but not more than 1/2 inch, of attached stalk	Х				
	More than 1/2 inch of attached stalk		Х			

Turne of defects and definitions	Classification			
Types of defects and definitions	Minor	Major	Severe	
The following are aggregated and apply to the entire sample unit				
Attached or loose husk:				
More than one (1) square inch but not more than two (2) square inches	Х			
More than two (2) square inches but not more than three (3) square inches		Х		
More than three (3) square inches			Х	
Dark or readily noticeable silk (strands one (1) inch long or longer):				
10 to 20 inches	Х			
21 to 30 inches		Х		
Over 30 inches			Х	

Table IV - Defects for Each Grade

Grade Classification	Total of Minor only (applicable only when there are no Major or Severe)	Total of Minor, Major, and Severe	Limit for Major and Severe	Limit for Severe				
	Maximum units per sample							
U.S. Grade A	6	4	1	0				
U.S. Grade B	12	9	3	1				

§52.942 Tenderness and maturity.

- **General.** The tenderness and maturity of frozen corn on the cob is determined by:
 - (1) Identify corn as conventional sweet or supersweet.
 - (2) For conventional sweet corn, check for presence of a blister-stage of kernel development on water-thawed ears; and check the stages of kernel development in accordance with the method in §52.943.
 - (3) For supersweet corn, chew the corn and determine the tenderness and maturity in accordance with the method in §52.943.
 - (4) Check the tenderness of the pericarp and affirm the maturity of the kernels after cooking in accordance with the method in §52.944.

- (b) Conventional sweet frozen corn on the cob definitions of stages of kernel development.
 - (1) Blister stage: The kernel contents are thin and watery or slightly cloudy or translucent and the pericarp is generally very pale in color. An ear is considered to be in the blister stage if more than one-fifth of the kernels are in the blister stage.
 - (2) Milk stage: The kernel contents are opaque and viscous. Light pressure is required to remove contents.
 - (3) Early cream stage: The kernel contents are slightly creamy and viscous. Reasonably firm pressure is required to remove contents which show only slight separation of clear liquid.
 - (4) Cream stage: The kernel contents are creamy and thick. Firm pressure is required to remove contents which show no free liquid.
 - (5) Dough or overmature stage: The kernel contents are semi-solid or hard and require considerable pressure to remove contents which appears starchy or doughlike.
- (c) "A" classification. Conventional sweet frozen corn on the cob that is tender, but none of the ears are in the blister stage, may be given a score of 27 to 30 points.
 - **Tender** means that the kernels are in the milk or early cream stage of maturity and the pericarp is reasonably tender.
- (d) "B" classification. If the conventional sweet frozen corn on the cob is reasonably tender, and none of the ears are in the blister stage, a score of 24 to 26 points may be given. Conventional sweet frozen corn on the cob that falls into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (limiting rule).
 - **Reasonably tender** means that the kernels are in the cream stage or better stage of maturity and the pericarp is fairly tender.
- (e) "Sstd" classification. Conventional sweet frozen corn on the cob that fails to meet the requirements of paragraph (d) of this section may be given a score of 0 to 23 points and shall not be graded above Substandard, regardless of the total score for the product (limiting rule).
- (f) Supersweet frozen corn on the cob definitions of tenderness and maturity.
 - (1) Good tenderness and maturity in supersweet frozen corn on the cob is crisp corn, that may have slightly tough pericarp, and compact internal

- flesh that is associated with plump or full kernels. There are three levels of quality within good tenderness and maturity: very tender and crisp; tender and crisp; and, moderately tender and crisp.
- (2) Reasonably good tenderness and maturity in supersweet frozen corn on the cob lacks tenderness and may be moderately dry. Kernels may have a reasonably tough pericarp and occasionally are dented. There are two levels of quality within "reasonably good tenderness and maturity:" not crisp, not moist; and, not crisp, moderately dry, and may include occasional dented kernels.
- (3) Fair to almost tough in supersweet frozen corn on the cob is dry, chewy corn, with fairly tough pericarp.
- (g) "A" classification. Supersweet frozen corn on the cob that has good tenderness and maturity may be given a score of 27 to 30 points.
- (h) "B" classification. Supersweet frozen corn on the cob that has reasonably good tenderness and maturity may be given a score of 24 to 26 points. Supersweet frozen corn on the cob that falls into this classification shall not be graded above U.S. Grade B, regardless of the total score for the product (limiting rule).
- (i) "Sstd" classification. Supersweet frozen corn on the cob that fails to meet the requirements of paragraph (h) of this section may be given a score of 0 to 23 points and shall not be graded above Substandard, regardless of the total score for the product (limiting rule).

Explanations and Methods of Analysis §52.943 Preparation for and evaluation of stages of kernel development.

- (a) The sample unit is water-thawed only to the extent that the ears are substantially free from ice crystals.
- (b) At least three (3) complete adjacent rows of kernels from each ear (or an equivalent number of kernels if the kernels are not in rows) are removed by cutting the kernels off, near but above their attachment to the cob.
- (c) The cut kernels from all the ears in a sample unit are well mixed and an adequate representative sub-sample is removed.
- (d) For conventional sweet frozen corn on the cob, sufficient kernels from the subsample are squeezed to properly evaluate the degree of maturity in accordance with the definitions in §52.942.

(e) For supersweet frozen corn on the cob, sufficient kernels from the sub-sample are chewed to evaluate the degree of maturity in accordance with the definitions in §52.942.

§52.944 Cooking procedure and evaluation of cooked units.

- (a) An adequate representative number of ears in the sample unit are evaluated after cooking to ascertain:
 - (1) The degree of maturity of kernel contents;
 - (2) Tenderness of the pericarp; and
 - (3) The flavor and odor.
- **(b)** This cooking procedure is not intended as a recipe, but for the purposes of this subpart, frozen corn on the cob is cooked (and the evaluation thereof) is as follows:
 - (1) Place the sample units into rapidly boiling water with sufficient water to completely cover the ears;
 - (2) Return the water to a rapid boil;
 - (3) Maintain a rolling boil for exactly five (5) minutes;
 - (4) Remove the ears immediately, and allow to cool sufficiently to evaluate the factors of maturity, tenderness of pericarp, and flavor and odor by eating the corn directly from the cob.

Lot Compliance

§52.945 Ascertaining the grade of a lot.

The grade of a lot of frozen corn on the cob covered by these standards is determined by the procedures set forth in the Regulations Governing Inspection and Certification of Processed Fruits and Vegetables, Processed Products Thereof, and Certain Other Processed Food Products (§52.1 - §52.83), except that these provisions apply wherever applicable:

- (a) Container size. In considering the size of a container for purposes of selecting samples from a lot, an ear shall be considered to weigh 8 ounces except that ears which are trimmed to approximately 3-1/2 inches or less in length shall be considered to weigh 4 ounces each.
- **(b) Dozen.** In calculating the number of dozens of ears, ears which are trimmed to approximately 3-1/2 inches or less in length shall be considered as 24 of such ears being the equivalent of one dozen ears.

Score Sheet

§52.946 Score sheet for frozen corn on the cob.

Container marks or identification	Size and kind of container					
Net weight (ounces) Style (trimmed or natural) Length of ears (inches) Color (yellow – white – mixed) Supersweet or Conventional Sweet Factors	Container marks or identification					
Style (trimmed or natural) Length of ears (inches) Color (yellow – white – mixed) Supersweet or Conventional Sweet Grade Score Points Factors Grade "A" 18-20 Color 20 "B" 16-171 "Sstd" 0-151 Uniformity of size 10 "B" 8 "Sstd" 0-72 Development 10 "B" 8 "Sstd" 0-72 Defects 30 "B" 24-261 "Sstd" 0-231 Tenderness and maturity 30 "B" 24-261 "Sstd" 0-231 Total Score 100	Label					
Length of ears (inches) Color (yellow – white – mixed) Supersweet or Conventional Sweet Factors Grade Score Points Color 20 "B" 16-17¹ "Sstd" 0-15¹ "Sstd" 0-15¹ Uniformity of size 10 "B" 8 "Sstd" 0-7² "A" 9-10 Development 10 "B" 8 "Sstd" 0-7² "A" 27-30 Defects 30 "B" 24-26¹ "Sstd" 0-23¹ "A" 27-30 Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ "B" 24-26¹ "Sstd" 0-23¹ "Sstd" 0-23¹ Total Score 100 "Sstd" 0-23¹	Net weight (ounces)					
Color (yellow – white – mixed) Supersweet or Conventional Sweet Factors Grade Score Points Color 20 "B" 16-17¹ "Sstd" 0-15¹ "A" 9-10 Uniformity of size 10 "B" 8 "Sstd" 0-7² "A" 9-10 Development 10 "B" 8 "Sstd" 0-7² "A" 27-30 Defects 30 "B" 24-26¹ "Sstd" 0-23¹ "A" 27-30 Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ "Sstd" 0-23¹ Total Score 100 "Sstd" 0-23¹	Style (trimmed or natural)					
Supersweet or Conventional Sweet Factors Grade Score Points Color 20 "A" 18-20 Uniformity of size 10 "B" 16-17¹ Uniformity of size 10 "B" 8 "Sstd" 0-7² 8 "Sstd" 0-7² 9-10 Development 10 "B" 8 "Sstd" 0-7² 9-10 Defects 30 "B" 24-26¹ "Sstd" 0-23¹ 9-10 Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ 0-23¹ Total Score 100 100	Length of ears (inches)					
Factors Grade Score Points Color 20 "A" 18-20 "B" 16-171 "Sstd" 0-151 Uniformity of size 10 "B" 8 "Sstd" 0-72 8 "Sstd" 9-10 9-10 Development "B" 8 "Sstd" 0-72 9-10 "B" 8 "Sstd" 0-72 "Std" 0-72 9-10 "Sstd" 0-72 9-10 9-10 "B" 8 "Sstd" 0-72 "Sstd" 0-72 9-10 9-10 9-10 "B" 24-261 9-10 <td>Color (yellow – white – mixed)</td> <td></td> <td></td> <td></td>	Color (yellow – white – mixed)					
Color 20 "A" 18-20 Uniformity of size 10 "B" 16-17¹ Uniformity of size 10 "B" 8 "Sstd" 0-7² "Sstd" 0-7² "Sstd" 0-7² "Sstd" 0-7² "Sstd" 0-7² "Sstd" 0-23¹ "Sstd" 0-23¹ Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ Total Score 100	Supersweet or Conventional Sweet					
Color 20 "B" 16-17¹ "Sstd" 0-15¹ Uniformity of size 10 "A" 9-10 "B" 8 "Sstd" 0-7² "A" 9-10 Development 10 "B" 8 "Sstd" 0-7² "A" 27-30 Defects 30 "B" 24-26¹ "Sstd" 0-23¹ Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ Total Score 100	Factors		Grade	Score Points		
"Sstd" 0-15¹			"A"	18-20		
Uniformity of size 10 "A" 9-10 "B" 8 "Sstd" 0-7² A" 9-10 "A" 9-10 "B" 8 "Sstd" 0-7² "Sstd" 0-7² "Sstd" 0-7² "A" 27-30 "B" 24-26¹ "Sstd" 0-23¹ Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ Total Score	Color	20	"B"	16-17 ¹		
Uniformity of size 10 "B" 8 "Sstd" 0-7² Development 10 "B" 8 "Sstd" 0-7² 10 "B" 8 "Sstd" 0-7² A" 27-30 Defects 30 "B" 24-26¹ "Sstd" 0-23¹ Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ Total Score 100			"Sstd"	0-15 ¹		
Sstd" 0-72			"A"	9-10		
Development	Uniformity of size	10	"B"	8		
Development 10 "B" 8 "Sstd" 0-7² "A" 27-30 "B" 24-26¹ "Sstd" 0-23¹ "A" 27-30 "B" 24-26¹ "Sstd" 0-23¹ Total Score 100			"Sstd"	0-72		
## Sstd" 0-72 Mathematical Content of Tenderness and maturity 30 "Sstd" 0-72 (A" 27-30 24-261 (Sstd" 0-231 (A" 27-30 27-30 (B" 24-261 (Sstd" 0-231 (Sstd" 0-231			"A"	9-10		
Defects 30 "A" 27-30 "B" 24-26 ¹ "Sstd" 0-23 ¹ Tenderness and maturity 30 "B" 24-26 ¹ "Sstd" 0-23 ¹ Total Score 100	Development	10	"B"	8		
Defects 30 "B" 24-26¹ "Sstd" 0-23¹ "A" 27-30 "B" 24-26¹ "Sstd" 0-23¹ Total Score 100			"Sstd"	0-72		
#Sstd" 0-23 ¹ Tenderness and maturity 30 #B" 24-26 ¹ #Sstd" 0-23 ¹ Total Score 100			"A"	27-30		
Tenderness and maturity 30 "A" 27-30 "B" 24-26¹ "Sstd" 0-23¹ Total Score 100	Defects	30	"B"	24-26 ¹		
Tenderness and maturity 30 "B" 24-26¹ "Sstd" 0-23¹ Total Score 100			"Sstd"	0-23 ¹		
"Sstd" 0-23 ¹ Total Score 100			"A"	27-30		
Total Score 100	Tenderness and maturity	30	"B"	24-26 ¹		
			"Sstd"	0-23 ¹		
Flavor and odor	Total Score 100					
"A" Good; "B" Reasonably good; "Sstd" Objectionable						
U.S. Grade	U.S. Grade					

¹ Indicates limiting rule.

² Indicates partial limiting rule.